Equipments & Materials

Thermo VG Semicon (East Grinstead, UK) has received an order for a V90 MBE system from the **National Research Council** of Canada (for scientists at its Institute for Microstructural Sciences to develop opto and high-speed electronic devices).

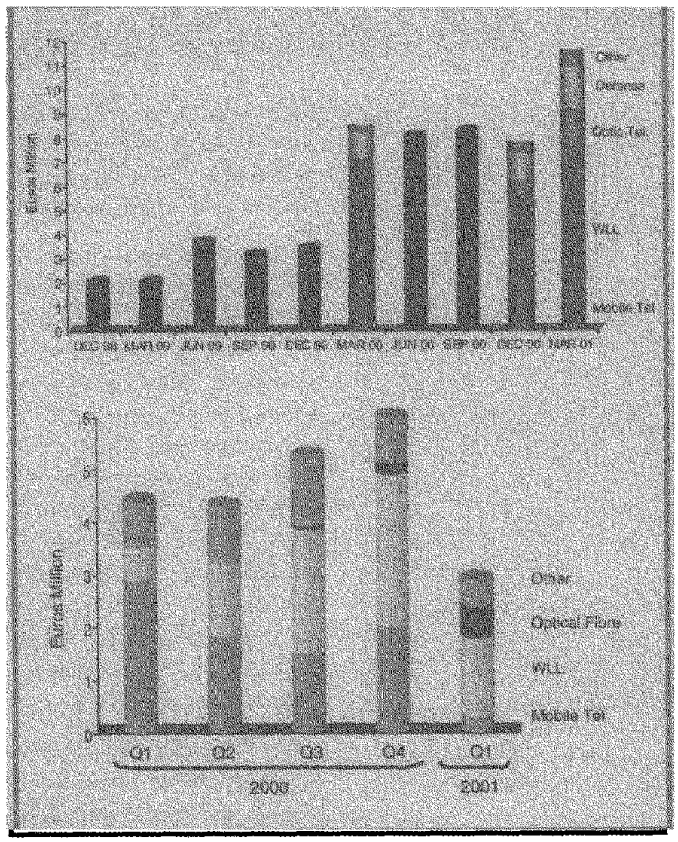
Despite fiscal 2001 sales (to end-March) of US$38.2m (up 45% on fiscal 2000), Q4/2001 sales for plasma etch tool supplier **Tegal Corp** (Petaluma, CA, USA) were only US$6.2m (46% *down* on Q3 and 27% on Q4/2000). However, order backlog is higher than in the past four years, so it expects net income at or near the break-even for the June quarter.

KDF (Rockleigh, NJ, USA) has shipped its 954NT four-target PVD in-line batch sputtering system to the newly established **Marconi Optical Components** group (Caswell, UK) for GaAs manufacturing, via its European representative TLCsrl Equipment & Assets (Milan, Italy).

VIGO Systems Ltd (Warsaw, Poland) - which manufactures uncooled photoconductors, photodiodes and photelectromagnetic 10.6 µm HgCdTe radiation detectors - has installed a **dominick hunter** MAXIGAS nitrogen gas generator for its MOCVD growth.

StratEdge (San Diego, CA, USA; Tel: +1-858-569-5000) is now offering complete assembly and test services of DC-50 GHz devices (both fibre-optic and MMIC). It has also launched the 580403 26-31 GHz leaded package for Ka-band operation (joining its DC-23 GHz leaded packages).

Picogiga sees shift to Wireless Local Loop



For epiwafer foundry **Picogiga** Q1/2001 revenues were €3.3m This is down 23% on Q1/2000:
- down 60% in the US, but up 80% in Asia and Europe;
- down 90% in wireless, but up 115% in Wireless Local Loop (and a breakthrough in fibre-optic telecoms, which did not exist one year ago).

New sales for InGaP HBTs reached €0.4m, but could have tripled without a two-month delay to the installation of a multi-wafer MBE system. Order backlog grew from a record €8m at end-2000 to €12m at end-March.

Growth in second-half 2001 should make 2001 revenues higher than last year, reckons chairman and CEO Linh Nuyen.

Graph showing the decline of wireless revenues and the rise of Wireless Local Loop revenues for Picogiga.

Procomp increases GaAs focus

In Q1/2001 GaAs epi-wafers contributed 21% of total sales for **Procomp Informatics Ltd** (Hsinchu, Taiwan) compared to 14% (NT$985m) in 2000. By end-2001 they are expected to contribute 33% (NT$2.61bn).

Once compound semiconductors make up half of all revenues (in 2002), Procomp will spin off its broadband communications division as an independent subsidiary.

About 60% of Procomp's epi-wafer line is for cell-phone applications - NT$411m in Q1/2001 (up 198% year-on-year). New GaAs processing equipment that arrived in Q1 should be on-line in three months.

AXT maintains growth

For Q1/2001 **AXT Inc** (Fremont, CA, USA) had record revenues for continuing operations of US$40.1m (up 80% Q1/2000 and 8% on Q4/2000):

- Substrate division (97% of sales) US$38.8m (up 103% and 7%, respectively, primarily due to large-diameter GaAs and InP substrates, says president and CEO Morris Young). InP sales grew 36% on Q4/2000 and are now nearly 20% of substrate sales. "*Demand will continue to increase as next-generation fibre-optic components currently under development require even higher power and higher frequency capabilities*," says Young.
- Visible emitter division (3% of sales) US$1.3m (up 28% on Q4/2000), with VCSEL market growth fuelled by demand for higher data transmission rates in fibre-optic communications.

AXT expects Q2/2001 sales to be 2-6% up on Q1. "*We believe we are on track for another record year*," adds Young.

First commercial 3" GaN epi-wafers

Technologies and Devices International Inc (Gaithersburg, MD, USA) is offering (from July) the industry's first commercially available 3" GaN epi-wafers on sapphire substrate. This complements its existing 2" GaN and AlN epi-wafers (on both sapphire and SiC substrates).

TDI is also developing next generation epi-wafers comprising multi-layer device structures for short wavelength optoelectronic, high-power communication, and power electronic applications (as well as its program to commercialise bulk GaN and AlN substrates).